

MBR0520-0540

Voltage: 20- 40 Volts
Current: 0.5 Amp

Features

- Extremely Low Drop Down Voltage
- Extremely Thin Package
- Low Stored Charge
- Majority Carrier Conduction

Mechanical data

- Case: SOD-323, molded plastic
- Terminals: solderable per MIL-STD-750, method 2026
- Polarity: Indicated by cathode band
- Mounting position: Any
- Weight: 0.0045 grams



Maximum Ratings and Electrical Characteristics

Parameter	Symbol	MBR0520	MBR0530	MBR0540	Unit
Max. Repetitive Peak Reverse Voltage	V_{RRM}	20	30	40	V
Max. DC Blocking Voltage	V_{DC}	14	21	28	V
Max. RMS Voltage	V_{RMS}	20	30	40	V
Peak Surge Forward Current 8.3ms single half sine-wave Sine-wave superimposed on Rate load (JEDEC)	I_{FSM}	2.0			A
Max. Average Forward Current	I_o	0.5			A
Max. Forward Current at 0.1 A 0.5 A	V_F	0.31 0.43	0.36 0.47	0.36 0.47	V
Max. Reverse Current	I_R	0.10 @ $V_R=10V$ 0.25 @ $V_R=20V$	0.03 @ $V_R=10V$ 0.13 @ $V_R=30V$	0.03 @ $V_R=10V$ 0.13 @ $V_R=30V$	mA
Max. Thermal Resistance	$R_{\theta JA}$	426			$^{\circ}C/W$
Operating junction temperature	T_j	-40 to +125			$^{\circ}C$
Storage temperature	T_{STG}	-40 to +125			$^{\circ}C$

Note 1: Thermal resistance from junction to ambient

RATING AND CHARACTERISTIC CURVES (MBR0520-0540)

Fig. 1 - Reverse Characteristics (MBR0520)

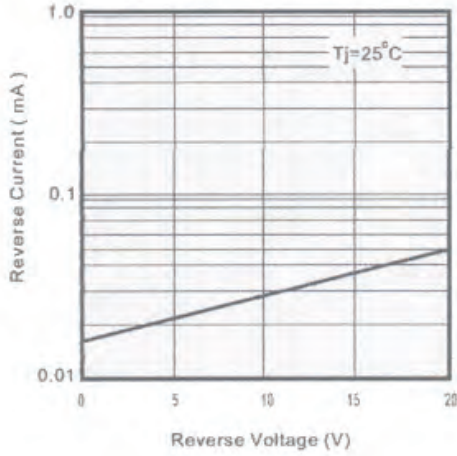


Fig. 1 - Reverse Characteristics (MBR0530-0540)

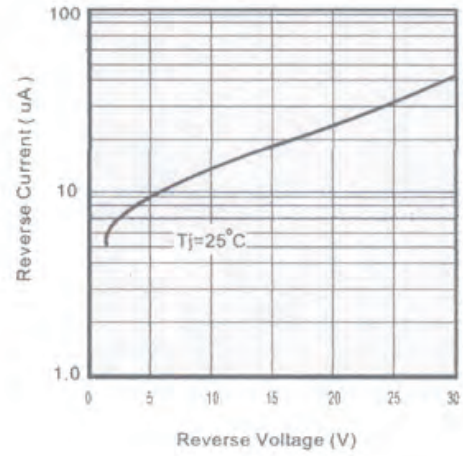


Fig. 3 - Forward Characteristics (MBR0520)

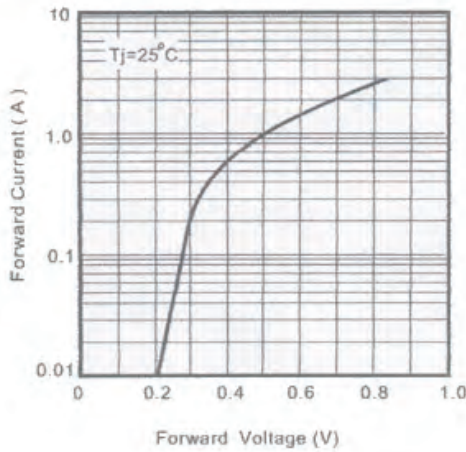


Fig. 4 - Forward Characteristics (MBR0530-0540)

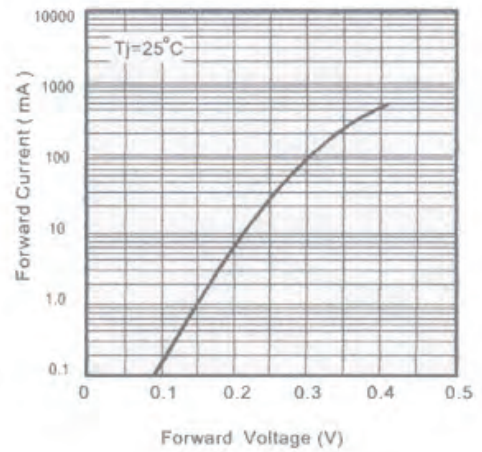


Fig. 5 - Capacitance Between Terminals characteristics

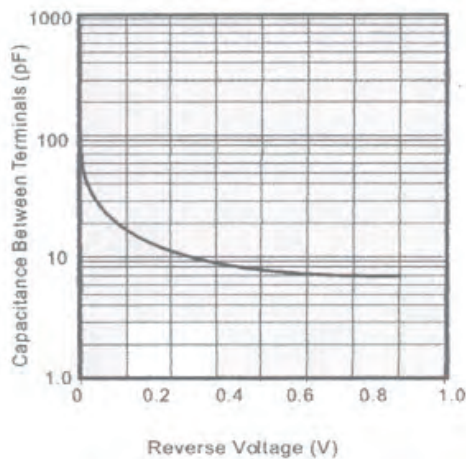


Fig. 6 - Current Derating Curve

